DiMarco Bret
Form 4
December 14, 2010

FORM 4

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. *See* Instruction 1(b).

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person [*] DiMarco Bret	2. Issuer Name **and** Ticker or Trading Symbol **COHERENT INC [COHR]**	5. Relationship of Reporting Person(s) to Issuer
(Last) (First) (Middle)	3. Date of Earliest Transaction (Month/Day/Year) 12/10/2010	(Check all applicable) _____ Director _____ 10% Owner __X__ Officer (give title _____ Other (specify below) below) Exec VP & General Counsel
PO BOX 54980		
(Street)	4. If Amendment, Date Original Filed(Month/Day/Year)	6. Individual or Joint/Group Filing(Check Applicable Line) _X_ Form filed by One Reporting Person ___ Form filed by More than One Reporting Person
SANTA CLARA, CA 95056-0980		
(City) (State) (Zip)		

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1.Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	12/10/2010		M		335	A	$ 26.16	5,727	D	
Common Stock	12/10/2010		S		335 [(1)]	D	$ 45	5,392	D	
Common Stock	12/13/2010		M		3,154	A	$ 26.16	8,546	D	
Common Stock	12/13/2010		S		3,154 [(1)]	D	$ 45.0414 [(2)]	5,392	D	

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)			5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Underlying Securities (Instr. 3 and 4)	
				Code	V	(A)		(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares
Non Qualified Stock Option (right to buy)	$ 26.16	12/10/2010		M		335			11/20/2010	11/20/2016	Common Stock	335
Non Qualified Stock Option (right to buy)	$ 26.16	12/13/2010		M		3,154			11/20/2010	11/20/2016	Common Stock	3,154

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
DiMarco Bret PO BOX 54980 SANTA CLARA, CA 95056-0980			Exec VP & General Counsel	

Signatures

Bret DiMarco	12/14/2010
**Signature of Reporting Person	Date

Explanation of Responses:

* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) Sold Pursuant to a Rule 10b5-1 sales plan adopted on May 28, 2010.

(2) Represents the weighted average sales price for the shares. The range of prices for such sales was $45.00 to $45.11.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.
Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.